DOCUMENT RESUME

ED 236 318 CE 037 184

TITLE	Learning Activities of California Adults. Commission Report 81-4.
INSTITUTION	California State Postsecondary Education Commission, Sacramento.
PUB DATE	Feb 82
NOTE	48p.
PUB TYPE	Reports - Descriptive (141) -- Reports - Research/Technical (143)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Adult Education; *Adult Learning; *Adult Students; Educational Policy; Educational Research; *Participation; Postsecondary Education; Surveys

ABSTRACT

This paper reviews work completed during the second year of a three-year project on postsecondary learning opportunities for adults. Background information includes perspectives on adult learning, issues of scope and definition, and a brief review of Postsecondary Education Commission projects related to project objectives. A review follows of important state and national studies on adult educational activities. Areas discussed include the participation rate; demographic variables that influence participation; differences between actual and would-be learners; reasons for participation; barriers to participation; subjects studied; choice of instructional methods, services, and resources adults would like to have available; preferred location and time; importance of credit; sources of instruction; and funding sources. A 1981 survey of California adults to determine their learning activities and interests is then reported. Results are compared with national and state surveys and with a 1974 survey of California adults. The final section presents these observations about adult learners: they are not a homogenous population; they behave in a highly traditional manner; and their attitudes keep them from participating in education. Issues that may serve as the basis for policy discussion are identified. (YLB)

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LEARNING ACTIVITIES OF CALIFORNIA ADULTS

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A Staff Report

of the

California Postsecondary Education Commission

1020 Twelfth Street, Sacramento, California 95814

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The California Postsecondary Education Commission was created by the Legislature and the Governor in 1974 as the successor to the California Coordinating Council for Higher Education in order to coordinate and plan for education in California beyond high school. As a state agency, the Commission is responsible for assuring that the State's resources for postsecondary education are utilized effectively and efficiently; for promoting diversity, innovation, and responsiveness to the needs of students and society; and for advising the Legislature and the Governor on statewide educational policy and funding.

The Commission consists of 15 members. Nine represent the general public, with three each appointed by the Speaker of the Assembly, the Senate Rules Committee, and the Governor. The other six represent the major educational systems of the State.

The Commission holds regular public meetings throughout the year at which it takes action on staff studies and adopts positions on legislative proposals affecting postsecondary education. Further information about the Commission, its meetings, its staff, and its other publications may be obtained from the Commission offices at 1020 Twelfth Street, Sacramento, California 95814; telephone (916) 445-7933.

Commission Report 81-4

February 1982

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BACKGROUND

Purpose

The percentage of adults in the American population is increasing, and the average age of Americans will continue to increase throughout the remainder of this century. Fewer 18- to 24-years old will be seeking postsecondary education at the same time that increasing numbers of older adults may desire to pursue learning throughout their lives. These trends are causing educators and State planners to look more closely at issues related to learning opportunities for adults.

The Education Commission of the States, with funding from the W. K. Kellogg Foundation, has undertaken a three-year project to assist states in planning to meet the needs of adult learners. During 1980--the first year of the project--it selected six pilot states (including California) for participation. In California, the California Postsecondary Education Commission--the agency responsible for the State's participation in the project--conducted a series of meetings and conferences with leaders in the area of adult learning in order to assess current opportunities for adult education and to determine what, if anything, the State can and should do to improve these opportunities.

Because data-based planning requires statistical information about what is being done to serve adults and what more is needed, during the second year of the project the Postsecondary Education Commission contracted with the Evaluation and Training Institute of Los Angeles to conduct a statewide survey of California adults in order to update information obtained from a 1974 statewide survey.

Commission staff has prepared this paper in order to:

1. Develop an analytic framework upon which future discussion can be based;

2. Summarize the findings of the survey research literature on the characteristics of adult learners;

3. Compare the 1981 California survey with other surveys; and

4. Raise issues which may serve as the basis for policy discussions during the third year of the project.

It should be noted that these purposes are relatively limited. For example, only survey research (as opposed to experimental research) will be reviewed. In addition, only student characteristics (as opposed to program characteristics) are to be studied.

Perspectives on Adult Learning

Like all institutions, American higher education has undergone gradual changes during the past two centuries. Considerable effort, particularly in the western states, has been directed toward expanding access to education for all citizens. Our conception of education has been broadened by the development of the notion of a system of "postsecondary education," which subsumes traditional higher education along with vocational, technical, and community service programs as part of education "beyond high school." But these changes have generally been viewed as the result of incremental alterations, made in response to discrete problems, in an essentially sound structure.

However, in recent years, attention has been devoted to the possibility of a fundamentally new conceptual approach to the education of adults. This concept is frequently referred to as "the learning society" or "lifelong learning." The basic notion is that society should structure its educational system so that persons of all ages can learn whatever they choose, by whatever means, and at whatever times and places they choose. The establishment of the learning society would not necessarily require dismantling all existing educational institutions and starting over again. Rather, it requires a way of thinking about how we should modify existing systems to make them better suited to the needs of modern society.

There are several reasons for this new approach to education. It should be possible for all persons to maximize their individual potential. This in turn means that each person can make the maximum possible contribution to society as a whole. In theory it should also be more efficient for society to develop a comprehensive approach to education, rather than simply tacking unrelated and potentially conflicting programs on to an already overburdened superstructure. In addition, there is also the pragmatic desire of institutions to seek out new populations in order to avoid major cutbacks in the face of projected declines in the number of traditional college-age students.

Unfortunately, the concept of "lifelong learning" has often been both controversial and confusing. As John Thelin has written (1980, pp. 2-4):

> The literature in the field is long on passionate advocacy and short on detached evaluation. It features unlimited promise: "new educational delivery systems" will bring "non-traditional" students to higher education and remove the barriers for "under-represented groups." "Lifelong Learning" is presented as a panacea for virtually every social problem including illiteracy, obsolete occupational skills, and family disintegration. To some it offers far more hope for the improvement of mankind than any religion . . . .
>
> It seems clear that the advocates not only promised too much but also paid too little attention to what already existed . . . . Emphasis on "non-traditional students" as a new priority incorrectly implied that colleges have not served adult, part-time students.
>
> Lifelong learning advocates gave us a term that couldn't be defined and thus confused and delayed the development of worthy educational programs.

From a practical standpoint, the question facing planners and policy makers is how to use this new conceptual framework to improve the actual delivery of educational services to adults. In order to facilitate the application of this framework, it is necessary to reduce this broad general concept to something concrete and familiar.

An alternate way to view adult education is as a cluster of programs and educational techniques which are not traditionally used in postsecondary education. In this view, adult education can be defined by systematically eliminating the various elements of traditional collegiate education. For example, if traditional collegiate education involves education of young adults who enter college directly from high school, then one form of adult education would consist of programs for those who enter college after a lapse of some time since high school graduation.

One objection to the use of this analytic approach is that it abandons the notion of a new conceptual framework for the education of adults. It is true that viewing adult education as a group of non-traditional approaches is a considerable departure from the pure theoretical notion of lifelong learning as a new conceptual framework for education. But this approach does have the virtue of lending some clarity to an otherwise ambiguous discussion. Moreover, as a practical matter, collegiate institutions will probably always view adult education as a new or nontraditional adjunct to their regular mission. Therefore, probably the most that State planners can hope to realistically accomplish is the streamlining

and coordinating of the development of this new dimension of post-secondary education. This being the case, the following analysis may serve as a valuable modeling technique.

Before one can begin to define nontraditional educational practices, it is necessary to define that which is traditional. Traditional collegiate education in this century has involved young adults (18-24 years of age) entering a four-year baccalaureate program directly from high school. Generally classes are taught in a traditional lecture or laboratory format on campus, and students spend 12 to 15 hours a week, usually during the daytime, attending class.

Perhaps the most obvious deviation from this traditional model is to simply increase the age of the students while holding everything else constant. Older adults who are regular full-time college students are familiar enough to be fairly well accepted. However, because no adjustments have been made to adapt the traditional educational program to their needs, this is an option which attracts relatively few adults. For example, the National Center for Education Statistics estimates that in 1975 only .7 percent of adults over the age of 35 participated full-time in college degree or high school diploma programs (1978, p. 16).

One of the most severe constraints on adult participation in traditional programs is the requirement, still found in many areas, of full-time participation. Classes are scheduled so that employment is effectively precluded, even when a student might be willing to attempt full-time work and full-time study. Even where employment is not a consideration, other responsibilities of adults, such as being a parent, may make full-time study impossible. For these reasons, part-time participation in regular college programs has become one of the major forms of education for adults.

For some, however, the time commitment is not the primary difficulty with traditional collegiate programs. Some adults find the highly regimented curriculum of the typical degree program to be too confining. In response, various institutions have begun offering programs in which the individual student may design his or her own degree program.

The next step away from the traditional collegiate education involves the total abandonment of a degree-oriented program. Many adult learners simply take courses as they feel a need and never seek or receive a degree at the end of a prescribed course of study. Indeed, many institutions and organizations now offer a broad array of courses designed specifically for this population.

Another alternative to the traditional model is to eliminate study and coursework either partially or completely. A number of institutions have started programs under which adults can gain academic credit or certification for experience and skills which they have acquired outside of the formal educational system. This approach is usually used in conjunction with some traditional coursework, but the two may be entirely separate.

Another variation involves changing the mode of instruction. Individualized instruction, small group settings, correspondence study, televised or electronically recorded classes, and computer-based instruction are the major types of innovative approaches being used to bring a greater flexibility to collegiate education. These methods make it possible for students to pursue their studies at different times, different places, or at different paces. Each of these options appeals to a different population of adults who find the traditional instructional format too rigid. There is a tremendous potential in this area for reshaping education to meet the needs of adults. For example, despite its limited use for educational purposes, television reaches approximately 97 percent of California's households.

Another model for adult education is instruction provided by an organization other than a college or university. Viewed as a form of postsecondary education this is a nontraditional area. But, in another sense, the only thing that is new about this area is that we are beginning to recognize that the education and training that has always been provided by business, industry, the military, community service organizations, and the government, are really just different forms of postsecondary education. These non-educational organizations provide a large percentage of all educational opportunities available for adults.

Issues of Scope and Definition

Deciding on a single term to describe the participation of adults in postsecondary education is extremely difficult. One problem is that the terminology used in the literature does not lend itself to precision. "Lifelong learning" as a term is too broad and imprecise to be useful, while terms such as "adult education" and "continuing education" have come to connote specific types of programs with limited purposes. The use of such terms in this paper has been minimized but not avoided entirely. Therefore, unless the contrary is specifically stated, terms such as "adult education" or "adult learning" are used interchangeably in this paper to reflect the participation of adults in instructional activities as defined below. The second terminological problem is that most of the studies in this area have defined their key terms in slightly

different ways. Thus, particular statistical comparisons may involve definitions of adult learning which are either broader or narrower than that established by the scope of this paper.

In developing a definition of "adult learning," the first task is to decide what is meant by the term "learning." There are three common definitions:

1. Courses taken for academic credit at institutions of post-secondary education;

2. Organized instruction in any form; and

3. Sustained, deliberate efforts to learn.

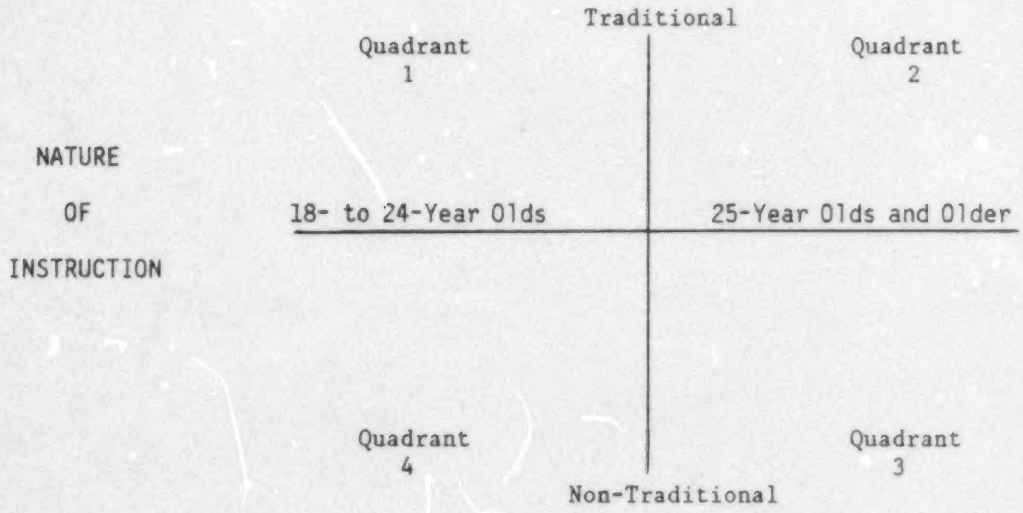
The first definition is obviously too narrow to permit a discussion which can comprehensively address the needs of adult learners. The third definition is conceptually appealing, but it lacks precision and encompasses forms of learning far beyond the direct influence of State educational policies. For these reasons, and because "organized instruction" is the definition of learning which is most widely accepted, the second definition is adopted for this paper.

The next problem is to define "adults." For virtually all purposes, any person 18 years old or older is considered an adult. However, as a practical matter we are most interested in the learning needs of persons beyond traditional college age (usually considered to be between 18 and 24). Unfortunately, simply setting the age at 25 does not solve the problem because some persons between 18 and 24 would be considered non-traditional students because of the time, place, or manner in which they learn. Therefore, any definition which simply uses age as the sole factor will inappropriately describe the population to be studied.

If age of student and nature of instruction are viewed as the key variables, the diagram on the following page illustrates the possible groupings of adult learners.

We are interested in studying the characteristics of all persons in Quadrants 2, 3, and 4, but not in Quadrant 1. By contrast, most studies distinguish only by age (including Quadrants 2 and 3 while excluding Quadrants 1 and 4) or only by nature of instruction (including Quadrants 3 and 4 while excluding Quadrants 1 and 2). Therefore, the only way to obtain comparability is to include the entire universe of adult learners (Quadrants 1-4) and to attempt to focus the discussion, where possible, on the groups of greatest interest.

AGE OF PARTICIPANTS



Based upon the previous discussion, for purposes of this paper, "adult learning" means activities by which persons 18 years of age or older seek to acquire skills, knowledge, or information through any form of organized instruction.

This definition thus includes the educational activities of young adults who enter a traditional, degree-oriented collegiate program immediately after high school graduation (Quadrant 1). Nevertheless, the primary focus of the paper will be on the participation of nontraditional populations in postsecondary education (Quadrants 2-4).

Other Commission Projects Related to Adult Learning Activities

It has been necessary to review the past and present activities of the Commission to gain a comprehensive view of what is being done in the area of adult learning. With a little imagination, almost everything the Commission does could be related to lifelong learning. However, nothing is gained by expanding the scope of the inquiry to the entire universe of Commission activities. Instead the discussion will be limited to a brief review of those Commission projects which are most directly related to the objectives of the ECS project.

The following list describes Commission publications that relate to adult learning:

Through the Open Door: A Study of Patterns of Enrollment and Performance in California's Community Colleges (1976).

Contains findings about the evolution of two-year institutions into comprehensive Community Colleges serving students with very diverse characteristics and objectives, and offers recommendations about changes needed to bring about greater consonance between college practices and the needs of these new students. A subsequent report, "California Community College Students Who Transfer" (May 1979), describes students in the sample who transferred to the University of California and the California State University and Colleges during the mid-1970s.

A State Plan for Increasing the Representation of Students with Disabilities in Public Higher Education (1978).

Responds to ACR 201 (1976) calling on the three public segments to prepare plans to provide for "addressing and overcoming, by 1980, the underrepresentation of handicapped students in the makeup of the student bodies of institutions of public higher education as compared to the general proportion of such students in recent California high school graduation classes" and requesting the Commission to "integrate and transmit the plans to the Legislature."

Access in a Broader Context: College-Going Rates in California (1978).

Analyzes college-going rates of high school graduates between 1974 and 1977 by comparing the number of high school graduates per county with the enrollment of first-time freshmen aged 19 or younger in the State's colleges and universities; concludes that approximately 60 percent of the State's high school graduates enroll in college and that this percentage has not declined over the three-year period; and also reports the numbers of students transferring from Community Colleges to baccalaureate-level institutions. (Updated and expanded in each succeeding year.)

Formal Education and Training Programs Sponsored in California by Business, Industry, Government, and the Military: Part of a Series of Reports on Lifelong Learning (1978).

Reviews national and State data regarding the extent of adult education conducted or funded by non-academic organizations, primarily for their employees; describes the links between these organizations and educational institutions, in particular, those arranged by "educational brokers;" and raises policy questions about these programs and the work of these brokers.

Report of the Statewide Task Force on Services to Students With Disabilities (1979).

Responding to June 1979 supplemental budget language, this report of a task force composed of representatives of the three public segments of higher education, the Department of Finance, and the Department of Rehabilitation under the leadership of the Commission, presents a common set of policy guidelines for the segments to use in creating and operating disabled student educational service programs.

Using Instructional Media Beyond Campus: One in a Series of Reports on Lifelong Learning (1979).

Describes instructional media that are being used or might be used to extend educational opportunities into the community, including television, radio, instructional tapes, and newspapers; recommends ways to expand and coordinate their use in the interests of widespread lifelong-learning opportunities.

The Price of Admission: An Assessment of the Impact of Student Charges on Enrollments and Revenues in California Public Higher Education, Revised Edition (1980).

To help estimate the likely impact of increases in student charges at the State's colleges and universities on college-going rates and institutional income, this report describes the results of a computer simulation model testing various student charge and financial aid policies in terms of their projected revenue and enrollment effects, with projections for each segment in terms of students' residency status, level of program, and family income.

Degrees of Diversity: Off-Campus Education in California (1980).

Traces the history of the off-campus education and "external degree" movements in other states and in California; summarizes the extent of these offerings in the State; examines questions of access, finance, and quality regarding the programs; and recommends State action to bring coherence to these programs, particularly in the State University and indirectly in independent institutions, by establishing priorities for State support of certain instruction.

Equal Educational Opportunity in California Postsecondary Education: Part III (1980).

In response to Assembly Concurrent Resolution 151 (1974), calling for overcoming "ethnic, economic, and sexual underrepresentation" in public colleges and universities, compared to recent high school graduates, this report describes the barriers to overcoming the underrepresentation of ethnic minorities and women; identifies the programs underway to assure equal educational opportunity; reviews "special action/exemption" admissions policies for affirmative action; reports on intersegmental consortia and financial aid programs relevant to equal opportunity; and recommends steps toward a coordinated statewide effort at affirmative action.

Missions and Functions of the California Community Colleges: One in a Series of Staff Papers for Discussion (1981).

To stimulate widespread discussion of directions and priorities of the California Community Colleges, on the assumption that "unless the Community Colleges make programmatic choices and set budget priorities, they will probably do many things less well and some things unsatisfactorily in the future," this staff paper reviews the traditional missions of the Community Colleges and discusses six problems facing them, including improving articulation with the schools, providing remediation, and assuring transfer opportunities to baccalaureate-level institutions.

The funding and evaluation of educational information centers and other programs supported under Titles I and IV of the Higher Education Act are examples of Commission involvement in efforts to expand opportunity for participation in education. Another Com-

mission project related to adult learning which is currently underway is a study of remediation in public postsecondary education. As mentioned earlier, establishment of the learning society would involve even greater expansion of access and further development of nontraditional delivery systems, which may increase the need for remediation at all levels of postsecondary education. The remediation study will provide basic data to aid in developing an understanding of this situation.

OTHER STATE AND NATIONAL STUDIES

Studies to be Reviewed

There have been numerous studies of the educational activities of adults. There is also a great deal of secondary literature which attempts to analyze these primary studies. Since it would be impractical and repetitive to exhaustly review all of this literature, this paper will concentrate on a review of some of the more important original research which has been done in this area. Studies from three states (New York, Kansas, and Illinois) have been included because these states are part of the ECS project and because the studies are similar enough to the California survey to permit some meaningful comparisons.

One of the earliest major studies regarding the education of adults was conducted by Johnstone and Rivera in the early 1960s. This national survey provided a data base upon which subsequent work has built. Moreover, this study established both the general parameters of the inquiry and the type of questions which have been used by most subsequent surveys of adult learners.

The next important national survey which will be discussed in this paper was conducted by the national Commission on Non-Traditional Study in 1972. This Commission, established and funded by the Carnegie Corporation of New York, contracted with the Educational Testing Service to conduct a comprehensive national survey of adult learners. Its final report, Diversity by Design (1973), includes a variety of information gathered by that Commission.

Probably the richest source of purely empirical data about adult learning is provided by the nationwide surveys conducted every three years since 1969 by the National Center for Education Statistics (NCES). For NCES, the Bureau of Labor Statistics inserts a question in the regular weekly survey of the national labor force, and those persons who indicate some involvement or interest in education are contacted and asked to participate in a follow-up survey. The NCES data provides the opportunity to compare results over the past 12 years. However, this potential is somewhat diminished by the fact that some changes have been made in the survey each time that it has been administered.

Another problem in data comparison is illustrated by two Kansas surveys, one in 1978 and one in 1980 (Kansas Council, 1980). With the exception of a few general questions, these surveys focused primarily on the interests of would-be learners. This is a valuable approach if a state is interested in developing a needs as-

sessment. However, these data can only be considered suggestive if used to analyze or predict the actual participation of adults in education.

Another state survey which has been selected for inclusion in this paper was conducted in 1980 in New York (University of the State of New York, 1980). Unfortunately, the information now available from New York is limited and consists largely of enrollment data from institutions of postsecondary education. However, New York does have a comprehensive approach to planning for adult learners, and both this effort and the state's size make it an obvious target for comparisons with California.

Illinois is another large industrial state which invites comparison with California. In its effort to establish a good data base about adult learner participation in postsecondary education, Illinois designed and administered a survey in 1978 (Illinois Board of Higher Education, 1979). Due to the extensive development efforts for the Illinois survey, and in order to obtain some comparable data across states, the 1981 California survey was designed to adhere as closely as possible to the one used in Illinois.

The other major study which will be reviewed in this paper was conducted for the California Legislature in 1974. Its results were published in a report titled "California's Need for Postsecondary Alternatives" (Peterson and Others, 1975), which served as the basis for policy discussions in the educational community and the Legislature.

These particular studies have been selected because they are important original contributions to the literature and because they offer some possibility of drawing meaningful comparisons. However, there are significant limitations on the comparability of the data from the several surveys which have been chosen. Different questions, interview techniques, target populations, definitions, and time periods are involved. It is probably safe to say that no more than a general sense of the similarities and differences can be gained from a review of the surveys. When glaring discrepancies appear, an attempt will be made to present possible explanations. However, no comprehensive effort will be made to reconcile all inconsistencies among the surveys.

Definitions

As mentioned earlier, writers on adult learning are not in agreement regarding definitions. There appear to be three general approaches. First, some authors, viewing adult learning in its broadest sense, include self-directed learning (Tough, 1971) or

even unintentional learning (Peterson, 1979) within their preview. At the opposite end of the spectrum are those who restrict adult learning to courses taken for credit at an institution of postsecondary education (University of the State of New York, 1979). However, most studies of adult learning limit inquiry to learning which results from organized instruction (Carp, Peterson, and Roelfs, 1974). Because it is so widely used, this latter definition has been adopted for this paper.

Demographic Variables

One of the objectives of this paper is to analyze participation in adult education with respect to several important demographic variables. Some of these are the standard statistical parameters such as age, sex, ethnicity, and income level. Others, such as marital status and educational attainment, have been included because (as discussed later) there is reason to believe that they may be strongly correlated with participation rates. Other demographic variables to be examined include employment status and geographic location. As various questions about participation in adult education are addressed (e.g., What subjects do adult learners study?), an effort will be made to determine whether the answers to these questions depend upon certain of the demographic variables.

How Frequently Do Adults Participate in Education?

Establishing a basic participation rate is the central inquiry of most research in adult learning. Unfortunately, results are far from conclusive or consistent. However, the following generalization by K. Patricia Cross seems valid (1981, p. 50):

> If there is some basic agreement on the type of learning which constitutes "participation" in adult education, moderate agreement can be obtained on participation rates. When the broadest definition "sustained deliberate efforts to learn" is used, then researchers generally agree that virtually everyone can be classified as a participant . . . . When the definition is limited to "receipt of instruction" or "organized learning" participation rates vary from roughly 12 percent to 30 percent of the adult population . . . . Figures from numerous State studies in the early 1970s suggest that a more realistic estimate would be one of three adults participating in some form of organized learning activity. If one were to take a highly restricted meaning of adult

> learning and count only those registered for credit or certificate, then the participation rate is usually less than 10 percent . . . .

Of the studies reviewed for this paper, all used the "organized instruction" definition except for the New York study, which implicitly adopts the most restrictive definition by discussing only students enrolled for credit in institutions of postsecondary education. The overall participation rates found by these several studies are displayed below in Table 1.

Some explanations can be offered to reconcile these varying results. As indicated earlier, the New York rate is low apparently because that study used a highly restricted definition of adult education. The NCES figures are probably low because they exclude vocational education and because information is gathered through the use of a mail survey.

The relatively low participation rate found by Johnstone and Rivera (1965, pp. 25-27) may be attributable to the fairly precise definitions they used. Similarly, Hefferlin, Peterson, and Roelfs phras-

TABLE 1

BASIC PARTICIPATION RATES

Survey	Survey Date	Participation Rate
Johnstone and Rivera	1961-62	17.3
NCES (1)	1969	18.2
NCES (2)	1972	19.7
Commission on Non-Traditional Study (Carp, Peterson, and Roelfs)	1972	30.9
California (Hefferlin, Peterson, and Roelfs)	1974	21.0
NCES (3)	1975	19.2
Illinois	1977	37.0
NCES (4)	1978	20.2
Kansas	1979	25.0
New York	1980	8.4

NOTE: Information for this table was adapted from Johnstone and Rivera, 1965, p.34; Boaz, 1978, p. 16; Carp, Peterson, and Roelfs, 1974, pp.15-16; Hefferlin, Peterson, and Roelfs, 1975, p. 10; Illinois Board, 1978, p. 13; NCES, 1980, p. 238; Kansas Council, 1980, p. R-44; and University of the State of New York, 1980.

ed their questions about participation in adult education in a way that may have led respondents to consider only formal education in an institutional setting. By contrast, most later studies have used fairly loose definitions which tend to be more inclusive and thus yield higher participation rates. In addition, the data upon which Johnstone and Rivera based their analysis were collected in 1961. It seems reasonable to suppose that overall participation rates of adults have increased in the past 20 years, as the average age of Americans has increased and as institutions have made increasing efforts to attract adult learners.

The above table gives some evidence to support the notion that participation rates have increased over time. First, the NCES results show a small but measurable increase over the 12-year period from 1969-1978, although Cross suggests that the majority of this increase occurred from 1969-1972 and that the rate of increase has slowed in recent years (1981, pp. 7-9). However, the changes in the NCES survey make it impossible to make a truly valid longitudinal comparison. Secondly, the 1977 Illinois survey found a 37 percent participation rate using an instrument similar to that which yielded a 30.9 percent rate nationwide for Carp, Peterson, and Roelfs in 1972. But again, the two surveys were still sufficiently different that this comparison can only be characterized as suggested. It should also be noted that some surveys ask participants whether they are currently participating while others ask if they have participated during a specified period of time in the past. This situation may result in different participation rates.

In summary, it appears that between 20 percent and 40 percent of adult Americans participate in some form of organized instruction. There is also some evidence that such participation has gradually increased over the past two decades.

Does Participation Vary as a Function of Learner Characteristics?

The literature on adult learning is surprisingly consistent on the question of which demographic variables influence participation.

Only three variables are strongly correlated with educational participation. As age increases, the rate of participation falls steadily (Boaz, 1978, p. 16). Conversely, as the level of previous educational attainment increases, the likelihood of further participation also increases. It is also clear that adults living in rural areas are less likely to participate than those in urban or suburban areas (Johnstone and Rivera, 1965, pp. 73-77).

Certain other variables, particularly ethnicity and family income, are indirectly related to educational participation by adults.

Some studies show no correlation for these variables, while others show moderately strong relationships. After a thorough review of the research on this subject, Cross concludes that ethnicity and income only appear to influence participation, and that previous educational experience is the truly influential factor (1981, p. 58). She bases this conclusion on evidence that when persons of different ethnic groups or different income brackets have similar educational backgrounds, the likelihood that they will participate further in education is similar.

Participation does not seem to be significantly related to sex (Carp, Peterson, and Roelfs, 1974, p. 15). However, for women who are not part of the labor force, the participation rate drops considerably (Johnstone and Rivera, 1965, p. 75). In addition the reasons that men and women give for their participation tend to differ (ibid., p. 14).

How Do Actual and Would-Be Learners Differ?

Two fundamentally different approaches have been used in research on adult learning. One group of studies, designed as "needs assessments," primarily look at what adults say they will do or would like to do with respect to further educational participation. Other studies simply attempt to describe what adults actually do, on the assumption that what people do is the best indicator of what they will do in the future. Later studies, including the 1981 California survey, have combined these two approaches.

Not surprisingly, participation of actual learners is considerably lower than would be predicted by the responses of potential learners (Carp, Peterson, and Roelfs, 1974, p. 15). The cause of this discrepancy is not clear. Perhaps adults would participate more frequently if education were better adapted to their needs, but it may also be that these figures merely illustrate the fact that people often seriously intend to do things which they never actually do. Of course, it is likely that a combination of these factors is at work. Unfortunately, the literature does not conclusively address this issue.

Why Do Adults Participate?

Adults participate in education for a wide variety of reasons. Some studies seek to precisely distinguish all of the possible motivations for participation. Other studies take a fairly gross measure of motivation by distinguishing job-related learning from that which is motivated by personal reasons.

Organizations and institutions which provide education to adults will probably find a detailed analysis of motivation to be valuable. However, for purposes of developing State policy, the distinction between employment-related and personal learning is sufficient.

Age seems to be strongly related to motivation for participation. Persons of working age are predominantly motivated to participate in education because of their jobs or their careers; persons both younger and older than this are more likely to participate for personal reasons (Hefferlin, Peterson, and Roelfs, 1975, p. 34).

Men and women also tend to have different reasons for their participation. Men are more likely to cite job-related training or career development as reasons for participation. By contrast, women often learn merely for the sake of learning or for personal growth (Boaz, 1978, p. 59). However, there is some evidence that these differences disappear when women become employed (University of the State of New York, 1980, p. 27). Thus, these differences may not be related to sex, but rather to employment status.

Job and career related reasons seem to be more important for actual learners than for would-be learners. This conclusion is based on comparisons made between different studies and should therefore be viewed as merely suggestive (Kansas Council, 1980, p. R-1; Hefferlin, Peterson, and Roelfs, 1975, p. 34). This implies that education is available to adults but that it is still sufficiently inconvenient that economic incentives will generate greater participation than intellectual curiosity or the desire for personal enrichment.

What are the Barriers to Adult Participation?

In developing State policy toward adult learning, the analysis of current barriers to participation is probably the most critical task. Once barriers have been identified, steps can be taken to improve participation, if permitting or encouraging better participation is deemed necessary.

Many studies suggest that cost is a significant barrier to adult participation in education (Carp, Peterson, and Roelfs, 1974, p. 46; University of the State of New York, 1979, p. 41). But there is some evidence that adults are actually willing to pay substantial amounts for education (Hefferlin, Peterson, and Roelfs, 1975, p. 58).

As might be expected, the extent to which cost is a barrier depends upon the socioeconomic status of the person (Johnstone and Rivera,

1965, p. 217). In fact, socioeconomic status seems to have significant effects on most barriers to learning (ibid.). For example, people of higher socioeconomic status tend to be more interested in education, but also have less available time for participation.

While availability of time is a particular problem for those with higher incomes, lack of time and convenience of class schedules are problems for a large number of learners. Some studies divide this into problems related to job responsibilities and those caused by home or family responsibilities. Others simply inquire about whether the person is too busy. But both approaches show availability of time to be a major barrier (Boaz, 1978, p. 63).

Other barriers, such as lack of transportation and lack of child care affect some groups but not others (Cross, 1981, pp. 101, 104). Other barriers that affect particular groups may be attitudinal, such as the feeling of older adults that returning to school would be uncomfortable or childish (Johnstone and Rivera, 1965, p. 217).

The research which has been done on barriers to learning may help educators and planners to modify programs to better meet the needs of adult students. However, caution is advisable in interpreting these results. First, surveys can only measure what people perceive to be barriers. If people's information about available opportunities is not accurate, then their perceptions will not be accurate. Thus, even if a particular barrier really does not exist, if people perceive it exists, an effective barrier is erected to further participation. There is some evidence that this problem of inaccurate information and perception of nonexistent barriers has distorted the results of the surveys (Cross, 1981, p. 104). Secondly, survey respondents may name barriers merely as an excuse for not participating (ibid., p. 103). Finally, most surveys do not give respondents the option of saying that they simply do not want to participate. In the cases where it is a possible response, lack of desire, or other similar reasons, show up as significant "barriers" to participation (Kansas Council, 1980, p. R-10; Carp, Peterson, and Roelfs, 1974, p. 46). This suggests that other surveys may overstate the importance of other barriers by forcing respondents to identify some practical reason for not participating.

What Do Adults Study?

It is reassuring to note that adults generally study subjects which are consistent with the reasons that they give for participating in education. The most frequently cited reasons for participation are job related, as mentioned on page 14. Likewise, subjects frequently studied by adults are also job-related (Boaz, 1978, p. 24).

However, women and older adults are somewhat less likely to participate in job-related learning (Johnstone and Rivera, 1965, p. 80; Kansas Council, 1980, p. R-52).

Hobbies, recreation, home, and family living are all subjects which attract substantial numbers of learners (Carp, Peterson, and Roelfs, 1974, p. 24; and Boaz, 1978, p. 24). College-level general education, community affairs, and citizenship do not seem to be very popular with learners (ibid.).

In analyzing their 1974 survey of California adults, Hefferlin, Peterson, and Roelfs (1974, p. 40) developed an interesting comparison of learning interests for learners in California with the nation as a whole. At that time, Californians were twice as likely to participate in general education classes, and were far less interested than most Americans in personal development, religion, and public affairs (ibid.).

Regarding learning interests of adults, Cross concludes that:

> Extrinsic rewards, such as better jobs and more pay, appear to dictate subject matter interests until basic needs for security and recognition are met. The people most likely to assign top priority to education for enjoyment or other intrinsic motivations are those who are not interested in career advancement: retired persons, spouses who are not in the labor market (and not seeking to be), and well educated people who have attained all the career success that education is likely to provide (1981, p. 207).

How Do Adults Learn?

While adult learners may be nontraditional students, they seem to clearly prefer traditional instructional techniques. Conventional lecture-based college courses consistently rank first among preferred learning methods (Johnstone and Rivera, 1965, p. 53; and Carp, Peterson, and Roelfs, 1974, p. 30). There does seem to be a slight preference for evening college classes, as opposed to those held during the day (Hefferlin, Peterson, and Roelfs, 1975, p. 44). Predictably, the preference for evening classes is greatest for adults of working age (pages 29 to 49) and diminishes sharply after age 50 (ibid.).

The choice of instructional method is strongly influenced by educational attainment. Traditional college courses become increasingly attractive as the previous educational experience of the learner increases (ibid.). This is probably a reflection of the fact that

well educated persons are familiar with conventional instructional techniques, and have achieved success using them (Cross, 1981, p. 208).

On-the-job training is another popular instructional approach (Hefferlin, Peterson, and Roelfs, 1975, p. 44). Moreover, this may be an area where expanded opportunities should be provided. Interest in on-the-job training and in internships for would-be learners is considerably higher than for actual learners (Carp, Peterson, and Roelfs, 1974, p. 30).

Interest in certain other forms of non-traditional instruction, such as workshops and discussion groups, is also higher among would-be learners than among actual learners. On the other hand, over twice as many actual learners as potential learners expressed an interest in independent learning (ibid.).

Advocates of mediated education will be disappointed by the meager interest which adult learners express in such instructional methods. While Cross argues that this is merely indicative of lack of familiarity with telecommunications as an instructional medium (1981, p. 211), interest in this form of learning has not increased significantly since Johnstone and Rivera conducted their survey in the early 1960s (Carp, Peterson, and Roelfs, 1974, p. 31; 1965, p. 53; Hefferlin, Peterson, and Roelfs, 1975, p. 44; Kansas Council, 1980, p. R-25). This is true despite the substantial expansion in the use of television and other electronic media in education and every aspect of daily life during the past two decades.

There is some evidence that younger adults and those with more previous education are more receptive to the use of mediated instruction (Kansas Council, 1980, p. R-25). But other studies do not reveal any clear patterns related to these factors (Hefferlin, Peterson, and Roelfs, 1975, p. 44). In those studies where respondents are asked whether mediated instruction is acceptable, their responses are somewhat more favorable, but when they are forced to choose their favorite instructional technique from a specified list, media-based instruction is generally the least popular form. Johnstone and Rivera concluded that even at the time of their study (1961-62) adults had already come to view the electronic media primarily as a source of entertainment and not as an appropriate vehicle for serious education (p. 55).

What Services and Resources Would Adults Like to Have Available?

Policy makers and planners often assume that attracting new populations to postsecondary education requires the establishment of special services to meet the needs of these target populations.

However, there is little information available in the literature on adult education upon which to base decisions about which services, if any, should be offered.

Hefferlin, Peterson, and Roelfs did collect some information on this subject during their 1974 survey of California adults (p. 66). Assessment and testing services rated highest, with informational services also mentioned by large numbers of potential learners. Again, age and educational attainment strongly influenced the degree to which potential learners felt a need for particular services.

One striking finding of the 1974 California survey is that age and educational attainment do not seem to be good predictors of the demand for remedial courses and programs in reading, writing, and mathematics (pp. 66-67). The percentage of persons over 60 who indicated an interest in these subjects was virtually the same as that for persons from 18-40 years old. Most puzzling of all, however, is the fact that 11 percent of persons holding graduate degrees expressed an interest in remedial courses, whereas only 2 percent of those with only a four-year degree felt the same need.

It is also surprising that so little interest was expressed in remedial courses (overall only 12 percent indicated an interest). Given the strong correlation between previous educational attainment and participation in adult education, it would seem reasonable that many potential learners would desire remedial courses in order to prepare for reentering the educational system. The growth of remedial courses and services in postsecondary education over the past decade would also seem to demonstrate a similar need. Perhaps this apparent discrepancy arises because those interested in participating tend to be better educated and thus do not need the remediation. This means that those who are poorly educated (and have probably had bad experiences with education in the past) simply lack the desire to participate again in educational activities as adults, and that offering remediation to assist them is unlikely to serve as much of an incentive. This again illustrates the practical importance of perceived barriers to participation, which was discussed earlier.

When and Where Do Adults Prefer to Learn?

The evidence with regard to where and when adults prefer to learn is rather scanty, but that which is available is fairly consistent.

Adults express a strong preference for evening courses taught during the week (Hefferlin, Peterson, and Roelfs, 1975, p. 44; Kansas Council, 1980, p. R-14 and p. R-40). Actual learners seem

to select classes in strict accord with this preference (ibid., p. 50). Adults also tend to prefer classes held on a high school or college campus (Boaz, 1978, p. 27; Carp, Peterson, and Roelfs, 1974, p. 32). Learning at home, at work, at a community facility, or at a religious institution are more frequently cited as desirable locations for learning by actual learners than by potential learners (ibid.). Consistent with earlier discussions, those who are well educated have the strongest preference for courses offered on a college campus (Hefferlin, Peterson, and Roelfs, 1975, p. 48).

Is Credit Important to Adult Learners?

Most studies indicate that approximately 40 percent of adult learners take classes for credit (University of the State of New York, 1980, p. 23; Kansas Council, 1980, p. R-3; and Carp, Peterson, and Roelfs, 1974, p. 36). Johnstone and Rivera, however, found that only 17 percent of adults sought credit of any kind (1965, p. 68). At the opposite end of the spectrum, over 60 percent of Californians in 1974 indicated an interest in receiving some form of credit (Hefferlin, Peterson, and Roelfs, 1975, p. 52).

Age strongly affects the desire for credit (Illinois Board, 1978, p. 41; Kansas Council, 1980, p. R-3; and Hefferlin, Peterson, and Roelfs, 1975, p. 52).

Race also seems to affect the desire for credit. Whites are less likely than other groups to seek credit for their learning experiences (Illinois, 1978, p. 52; Hefferlin, Peterson, and Roelfs, 1975, p. 52).

While national NCES figures show a trend away from taking courses for credit (Boaz, 1978, p. 12), Cross discounts the validity of these figures and suggests that other data demonstrate that credit is increasingly important to adult learners (1981, p. 202).

From What Sources Do Adults Obtain Education?

The information to answer this question is rather limited. The available research indicates that two- and four-year colleges are the most frequently used soures of instruction (Kansas Council, 1980, p. R-45; Hefferlin, Peterson, and Roelfs, 1975, p. 22). Together these institutions serve slightly over half of all adult learners. Employers and community organizations also provide substantial numbers of adults with educational opportunities (ibid.). As might be expected, better educated persons are considerably more likely to attend classes at a college or university (Kansas Council, 1980, p. R-45).

Who Pays for the Education of Adults?

For those who do not pay for their own education, public funding and employers' sponsorship are the major sources of support (Boaz, 1978, p. 73). White women are more likely than any other group to support the cost of education from their own resources (ibid.).

In response to questions about how much they would be willing to pay for a class, the mean response of Californians in 1974 was 45 dollars (Hefferlin, Peterson, and Roelfs, 1975, p. 58). In 1975, 75 dollars was the mean response from Kansas adults to a similar question (Kansas Council, 1980, p. R-12). Men show a considerably greater willingness to pay for education than do women (Hefferlin, Peterson, and Roelfs, 1975, p. 58). Curiously, the Kansas and California studies do not reveal consistent or strong relationships between other variables (age, race, income, or education) and willingness to pay. However, after a review of the literature, Cross found some indications that older persons were more willing to pay than younger persons, possibly because of the changing attitudes of society about the right to low-cost education (Cross, 1981, p. 101). It is also clear that adults (or those sponsoring their educational activities, such as employers) are more likely to pay for job-related courses than for education designed to meet personal needs (ibid.).

THE 1981 CALIFORNIA SURVEY

In 1980, the meetings and conferences of the California Postsecondary Education Commission staff with leaders in the area of adult learning indicated a need for current empirical evidence about the participation of adults in education. The most recent comprehensive information available about the learning activities of California adults was contained in "California's Need for Postsecondary Alternatives" (Hefferlin, Peterson, and Roelfs, 1975), based on the results of a 1974 survey of California adults sponsored by the Legislature. Proposition 13 and other forces have brought about considerable change in the nature and structure of postsecondary education in California in the past seven years. Therefore, the Commission contracted with the Evaluation and Training Institute to conduct a new survey of California adults to determine their learning activities and interests. A complete report analyzing the results of the survey was prepared and submitted to the Commission in October 1981 (Rose and Graesser, 1981).

The 1981 survey was designed to provide a description of the learning activities of California adults, consistent with the fairly broad definitions used in this paper. Special efforts were made to ensure that non-English-speaking members of the Hispanic population were included in the survey sample. In addition, questions were worded so as to avoid restricting responses to participation in classes offered by educational institutions. Table 2 displays the broad range of organizations providing instruction to persons responding to the survey (Rose and Graesser, 1981, pp. E3-E4):

TABLE 2

PERCENT OF PARTICIPANTS BY TYPE OF ORGRANIZATION PROVIDING INSTRUCTION (N=148)

Organization	Percent of All Participants
University of California	9.5%
California State University	5.4
Private Colleges and Universities	8.1
Community Colleges	27.0
Secondary School Districts	4.7
Associations	7.4
Specialty Schools	13.5
Community Organizations	6.8
Employers	10.8
Government	2.0
Others	7.0

* The participation rates listed in this table are approximate because a few respondents did not indicate the orgranization from which they received instruction. Also, it is possible that the same person may have studied at two different organizations in the same category and would therefore be counted twice. The chances of such duplication are slight and should not substantially affect the results indicated above.

Survey Methodology

Because of limitations in funding and time, the Evaluation and Training Institute conducted a rather limited survey. Three hundred and fifty-four adult Californians agreed to answer by telephone a variety of questions about their participation or intended participation in education.* In order to improve the predictive reliability of this limited sample, the Institute made special efforts to assure a distribution of interviews between rural, suburban, and urban areas and between northern, central, and southern California locations. Nine cities (three from each geographic location and three from each size category) were selected as target areas for the administration of the survey.

Interviewers were provided with a set of instructions designed to guarantee a random selection of names from phone directories in the area to be surveyed. Calls were made at times particularly calculated to find adults at home. Special efforts were also made to reach non-English-speaking populations and, as a result, 34 interviews were actually conducted with this population.

The survey instrument itself (which was developed in consultation with Commission staff) was designed to collect information comparable with that collected in previous State and national surveys. Efforts were made to avoid difficulties encountered by some surveys in which questions were phrased so as to bias responses in favor of participation in traditional educational institutions. The primary emphasis in this survey was on collecting data about the actual participation of adults in education. However, to avoid unnecessarily limiting the usefulness of this survey, some questions were also asked of potential learners.

Comparison With National and State Surveys

Probably the most striking conclusion is that the results of the 1981 California survey are remarkably consistent with the results of other national and State surveys. For example, like all other surveys, the 1981 survey found that age and previous educational attainment exert the strongest influence on the likelihood that

*Interviewers also collected information about the participation of members of the household other than the actual survey respondent. However, this information was not used in the preparation of the final report due to problems with the data.

adults will participate in further education. This high degree of consistency gives some reassurance that the survey results are generally reliable. It also makes it possible for this analysis to focus primarily on those areas in which differences exist between the results of the 1981 California survey and other surveys.

The most fundamental difference occurs in the area of basic participation rates. The 1981 California survey found that 42.4 percent of respondents had participated in some form of organized instruction in the previous year (Rose and Graesser, 1981, p. 6). This contrasts with participation rates ranging from 17.3 percent to 37.0 percent, as displayed in Table 1, for other studies using similar definitions. While it is not possible to completely resolve why the participation rates found by these various studies are different, it is possible to suggest some explanations.

One explanation involves analysis of survey methodology. As suggested earlier on page 11, some of the studies which found relatively low participation rates used somewhat restrictive definitions. Also, there is some reason to believe that participation rates are increasing with time. Therefore, it is not surprising that the 1981 California survey found a higher participation rate, given that it was conducted this year and avoided restrictive definitions.

There may also be circumstances unique to California which create a higher participation rate. California has a tradition of publicly supported education for all. Both the University of California and the California State University and Colleges have well-developed programs of continuing or extended education. In addition, California also has an extensive network of low-cost Community Colleges which offer a broad variety of courses, many of which are specifically tailored to the needs of adult students. The 1981 survey also found that approximately 50 percent of all survey respondents who were participating did so in a wide variety of settings outside of educational institutions. These factors make it reasonable for California to have a somewhat higher participation rate than other states. This theory is reinforced by the fact that Illinois, with a relatively similar educational system, has a 37 percent participation rate.

The survey confirms the findings of earlier studies that age and previous educational attainment are highly determinative of further participation. However, it indicates that age does not exert a consistent uniform effect on participation rates. In the 1981 California survey, up until age 55, participation in learning activities is essentially constant, but during the interval from 55 to 65 participation drops sharply. Other studies have found a

gradual decline in participation as age increases, which becomes steeper between ages 55-65. If this new evidence is accepted, it would imply that adult learners can be divided into two distinct subgroups with respect to age (Rose and Graesser, 1981, p. 28).

Table 3 below also shows that participation in public postsecondary education declines much more sharply with age than does all learning.

Another finding of the 1981 survey is that residents of rural towns and urban areas participate at approximately the same rate (Rose and Graesser, 1981, p. 8). A slightly higher participation rate was found among suburban dwellers in the sample (ibid.). This contrasts with the evidence of other studies which found a measurable difference between urban and rural participation rates. These new findings also conflict with the commonly held notion that rural areas are underserved by educational programs, although the size of the 1981 survey sample makes these findings only suggestive. (It should also be noted that the 1981 survey of rural residents cen-

TABLE 3

PARTICIPATION OF CALIFORNIA ADULTS BY AGE IN PUBLIC POSTSECONDARY EDUCATION, FALL 1980, AND OTHER FORMS OF ORGANIZED INSTRUCTION, 1980-81

	Under 25	25-35	Over 35	All Ages
California Community Colleges	20.9%	9.1%	5.0%	9.3%
California State University	6.0	1.2	.2	1.7
University of California	2.9	.2	.02	.6
All Public Postsecondary Education	29.8	10.4	5.2	11.6
All Sources of Organized Instruction	50.0	51.2	21.6	42.4

Source: First four rows adapted from California Department of Finance, 1981. Last row adapted from Rose and Graesser, 1981, p. 9

tered on rural towns with populations of over 10,000 and their surrounding areas as opposed to undeveloped areas.)

The findings of the 1981 survey with regard to the impact of ethnicity on participation are generally consistent with the results of other surveys. However, the survey added a dimension not found in other surveys. Special efforts were made to conduct interviews with non-English-speaking Hispanic adults. The 11 percent participation rate for the non-English-speaking group in the sample is substantially lower than the overall 42 percent participation rate. Most significantly, when the non-English-speaking population is removed from the sample, the participation rates of all races are virtually identical. This reinforces the findings of other studies that race does not, at least independently, significantly affect educational participation.

Another difference between the California survey and some other surveys involves the degree to which adults participate for academic credit. As noted earlier, most surveys have found that approximately 40 percent of adults seek some form of credit for their participation. The 1981 survey found that 62 percent of adult learners who were surveyed seek credit (Rose and Graesser, 1981, p. 17). One possible explanation for this phenomenon is that two of the areas surveyed (Los Angeles and Sacramento) are in Community College districts where noncredit offerings are nonexistent or very rare. This would tend to artificially inflate the number of respondents who were taking courses for credit. It should also be noted that Hefferlin, Peterson, and Roelfs found a similar 60 percent participation rate in credit courses for California in 1974 (1975, p. 52).

The 1981 California survey found that, on the average, participants pay $112 per class attended. Tuition constitutes approximately $62 of the total $112. These figures are somewhat higher than results discussed earlier which were arrived at by other surveys. However, the effects of inflation and of the passage of Proposition 13 may have affected the amount which adults now pay for their education.

According to the 1981 survey, the majority of adults interviewed do not perceive any barriers to participation (Rose and Graesser, 1981, p. 21). Many other surveys fail to give the respondent the option of indicating a lack of barriers or a lack of desire to participate. But in those instances where such options are available, substantial numbers of respondents use them. Therefore, the new results are probably consistent with the findings of previous surveys. However, Rose and Graesser found that the most serious barrier to participation is lack of time (1981, p. 23). This contrasts sharply with the findings of virtually all other surveys that cost is the most important barrier to participation. There

are two possible reasons why cost may not be as much of a barrier in California as it is elsewhere. First, cost is not a barrier to those who can afford to pay, and a majority of adult learners who responded to the 1981 survey indicated that they or their sponsors (usually employers) paid a substantial amount for all costs associated with a course. Second, the barrier of cost is minimized for those who are less able to pay because of the availability of low-cost, publicly supported postsecondary education in almost every area of the State.

Another unique finding of the 1981 survey is that direct mail and announcements at work are among the most effective ways of interesting adults in educational participation. Television and radio advertisements reach large numbers of people, but did not seem to stimulate the degree of participation achieved when direct mail and other means of communication are used (Rose and Graesser, 1981, p. 25).

Comparison With the 1974 Survey

Again, the results of the 1981 California survey are remarkably consistent with those of the 1974 survey conducted for the Legislature. However, there are some significant differences between the results of the two surveys.

The 1974 survey found an overall participation rate of 21 percent (Hefferlin, Peterson, Roelfs, 1975, p. 9), while Rose and Graesser found a 42 percent participation rate in 1981 (p. 6). Some of the difference may be explainable in terms of the gradual increase in participation rates which has been noted in other states and nationwide. Also, it is generally believed that participation in educational activities increases when the economy is depressed and jobs are hard to get. Another possibility is that because the 1974 questionnaire posed the question about participation in terms of "education beyond high school," it may have led respondents to report only enrollment in postsecondary education and not other forms of learning. In addition, the 1974 survey asked whether respondents were currently participating in education beyond high school, whereas the 1981 survey asked whether respondents had participated in a learning experience during the past year. Another reason may be because in the 1981 survey if the person who answered the phone had not participated in a learning activity during the past year, the interviewer asked to speak with another adult in the household who had participated, which may have increased the participation rate.

Another notable difference between the 1974 and 1981 surveys is in the area of support services. Both surveys ask respondents to

indicate which of a list of possible support services would be attractive to them. In 1974, assessment services and information were the two most frequently mentioned services (Hefferlin, Peterson, and Roelfs, 1975, pp. 65-68). In 1981, job placement and counseling, financial aid, and programs for the elderly were the most popular types of services (Rose and Graesser, 1981, p. 22). Since these two surveys are the only ones that made inquiries about the types of services that adults would like to have available, there is no other data with which to compare these results. Therefore, it is difficult to resolve the differences between the two studies. The two surveys agree, however, that remedial courses and programs were not in great demand, despite the correlation between previous educational attainment and participation in adult education.

As mentioned above, the 1981 survey found cost to be less of a barrier than had been indicated by previous surveys. The 1974 survey was among those which ranked cost as the primary barrier to participation (Hefferlin, Peterson, and Roelfs, 1975, p. 59). The following table displays the findings of the two surveys with regard to barriers to participation.

TABLE 4

BARRIERS TO PARTICIPATION, 1974 AND 1981

Type of Barrier	Potential Learners 1974	Actual Learners 1981	Non-Participants 1981
No perceived barriers	-	66	67
Lack of time	-	29	23
Cost considerations	43	12	20
Family responsibilities	36	11	16
Job responsibilities	27	2	15
Lack of child care	19	7	9
Lack of transportation	11	6	9
Health/age considerations	5	4	20
Lack of interest	-	2	8
Scheduling of courses	25	2	-
Lack of courses	12	-	1
Energy	9	-	-
No classes close to home	-	1	2
Doesn't like to go out at night	-	-	2
Doesn't like to drive by self	-	1	-
Language barrier	-	1	-
No information	2	-	-

Source: Hefferlin, Peterson, and Roelfs, 1975, p. 61; Rose and Graesser, 1981, p. 23.

ISSUES AND OBSERVATIONS

This section presents a series of observations about adult learners followed by a discussion of several issues arising from research on adult learning which should help to focus and clarify policy discussions regarding the role of the State in the area of adult learning.

Observations

The first observation is that adult learners are not a homogeneous population. In fact, depending on which characteristics are selected, adult learners can be broken down into a variety of different subpopulations with different needs and desires. For example, during the period from 55 to 65 major changes occur in the needs and interests of adult learners, and those who are younger than this differ significantly from those who are older. Similarly, there is one group of adult learners who participate largely for job-related or career development reasons, while another group participate largely for personal enrichment and self development. Given these kinds of differences between subgroups, it seems inappropriate to develop State policies which deal with all adults in the same way.

A second and puzzling observation about adult learners is that they behave in a highly traditional manner. Approximately half of adult learners attend regular college or university classes. They tend to prefer lecture classes held in the evenings on campus. Substantial numbers of them, if not the majority, take classes for academic credit. They are particularly well educated, tend to come from the higher socio-economic strata of society, and are largely preoccupied with job advancement and career development. Moreover, the same results are obtained even when researchers deliberately exclude persons of traditional college age who are enrolled full time at an educational institution. Thus, it may be that adults up to age 55-65 have approximately the same needs and desires with regard to education as do younger students. However, it may also be that our educational system is organized in a way which encourages the participation of persons with these characteristics and discourages the participation of other groups.

Unfortunately, the literature on adult learning does not provide much assistance in resolving this question, but researchers have discovered some characteristics that are common to all adults. One indication of this is that both actual learners and potential learners give approximately the same reasons for wanting to participate in education. Another is that few survey respondents seem to

feel that available offerings do not meet their needs. Rather, cost and the lack of time are their most frequently cited barriers to participation. These facts seem to suggest that adults themselves, not the nature of the educational system, dictate the type of learning activities in which adults will engage.

Finally, it may be observed that the attitudes of some adults keep them from participating in education. The poorly educated and the elderly are two groups which show significantly lower participation rates than the adult population as a whole. The poorly educated, many of whom have had bad experiences with education in the past, believe that further education will not be beneficial for them. Persons over the age of 55 tend to believe that they would not be comfortable returning to school, that younger classmates will not accept them, that returning to school will be childish, or that educational institutions are not sensitive to the needs of the elderly. Regardless of the validity of these beliefs, it is the beliefs themselves which serve as the initial barrier to participation. If the participation of these groups is to be improved, it will certainly be necessary to identify and correct any institutional conditions which contribute to these beliefs. However, in itself this is not sufficient to attract these potential learners into the educational system. These adults must come to believe that the problems they perceive have been corrected and that opportunities exist which are appropriate to meet their needs.

What, If Anything, Should the State Do to Improve Educational Opportunities for Adults?

The majority of respondents to the 1981 California survey perceive no significant barriers to participation in education. Availability of time and cost are the two leading barriers of those they mentioned. Except for reversing availability of time and cost, these results are generally consistent with other national and statewide surveys.

It is difficult to argue that the State can improve educational opportunities for those who lack the time to participate. As regards cost, the literature indicates that cost may be more a perceived than an actual barrier. This seems particularly true in California with its extensive network of low-cost Community Colleges and public universities which provide a broad array of educational offerings in nearly every community in the State.

Given these facts, there may be little or nothing that the State can do to improve the participation of those who view cost and availability of time as primary barriers. If those selecting these responses are added to those who perceive no barriers to partici-

pation, only a very small minority of respondents are left who are prevented from participation by factors which program developers and State planners can control.

One group which does appear to be substantially underserved is the non-English-speaking Hispanic population. Only 11 percent of this population who were surveyed by Rose and Graesser indicated that they were participating in some learning activity. Rose and Graesser suggest that this situation might be improved if institutions offered regular courses in Spanish or made information available in Spanish about courses taught in English (1981, p. 28). Increased offerings of English as a Second Language (ESL classes) might also be helpful.

Participation rates are also low for the elderly. This may be due to a combination of factors such as reduced income, poor health, lack of transportation, and a feeling that educational institutions are not responsive to the needs of older citizens. Whether these problems are real or perceived, organizations which provide instruction may be able to take further steps to attract older students.

Those who lack extensive experience with formal instruction also are unlikely to participate further in learning activities. This is true despite the fact that they may not perceive any barriers to further participation. While those who have had limited previous experience with education may fail to participate because they do not think that further education would be valuable, they may not cite this as a barrier. Moreover, though they may lack basic academic skills, they generally do not view their lack of basic skills as a barrier to participation. Possible means of dealing with this problem and improving participation rates for the poorly educated are discussed in a later section.

Would the Imposition of Tuition Significantly Reduce the Participation of Adults?

As mentioned above, it does not appear that California can do much more to reduce the significance of cost as a barrier to participation of adults in education. On the contrary, there are now substantial pressures on the State to increase the cost of publicly supported education through the imposition of tuition. In the past, institutions have charged fees for particular services beyond instruction; but now, because of the fiscal situation in which the State finds itself, serious consideration is being given to imposing tuition to support the cost of instruction.

As proposals to impose tuition are considered, it is important to understand what impact some proposals may have on participation in adult learning activities.

Since 58 percent of learners who responded to the 1981 survey were receiving instruction from sources other than public postsecondary educational institutions, these persons would not be directly affected by the imposition of tuition in public postsecondary education. Furthermore, there are also some students attending public institutions who would probably not be affected by new proposals to impose tuition; e.g., nonresidents who already pay substantial tuition, and those in continuing education and University Extension courses which are now largely user supported.

The research reviewed in this paper does not permit further analysis of the impact of imposing tuition. There are some indications that learners would be willing to pay modest amounts (an average of $45 per course, according to Hefferlin, Peterson, and Roelfs, 1975, p. 58) but such survey data may not accurately indicate what people would actually do were such charges imposed. (A more comprehensive effort to analyze the factors influencing participation in public postsecondary education in relation to student charges was made in The Price of Admission, published by the Commission in 1980.)

Should the State Invest Further in Outreach and Information Services?

Available research clearly demonstrates that previous educational attainment is a strong determinant of future educational participation. It is also clear that when women, minorities, and other subgroups have approximately the same level of previous educational attainment, their rate of participation in adult education will be virtually identical. In light of these results, there appear to be two alternative ways of improving the participation of subgroups with low participation rates.

First, the State might expand its present outreach and educational information systems in an effort to find and attract more persons with poor educational backgrounds. Such efforts would have to locate such persons, persuade them that further education is in their best interest, and then equip them with the skills to participate effectively. During the past decade the State has invested considerable sums in such programs intended to recruit and retain minority students. Despite these efforts, the relative rate of participation of various racial and ethnic groups have remained essentially constant. The other obvious alternative is to concentrate State resources on improving the quality of education for disadvantaged groups at the elementary and secondary levels. The

results of the research on adult learning seem to suggest that such a policy might eventually yield dramatic results in improved participation rates for these groups.

Does College-Level Remedial Education Increase Adult Participation?

In an effort to assist underprepared students, many institutions of postsecondary education have initiated remedial education programs. These programs attempt to give underprepared students the basic academic skills they need to succeed in postsecondary education. In addition, these programs may help institutions retain some of these students since, without remedial classes, they might drop out.

These programs do not, however, address the underlying factors which preclude large numbers of adults from participating in postsecondary education. As discussed earlier, those with poor educational experiences early in life are likely to view further education as unnecessary and unproductive. These individuals will seldom enroll in a college or university, and therefore are unlikely to benefit from college-level remedial programs. These programs are probably most useful in those cases where underprepared students decide to enroll despite their educational deficits or are not aware of them.

The literature on adult learning would seem to argue strongly that, in addition to remediation at the postsecondary level, increased efforts are needed to prepare students adequately at the elementary and secondary level. This does not mean that college-level remedial courses and programs are not necessary but rather that they may not be the answer to the problem of assisting adults who lack both the basic skills and the motivation to participate in postsecondary education.

Should the State Promote Efforts to Expand the Use of Telecommunications in Education?

From a theoretical standpoint, telecommunications or electronic media have innumerable advantages in disseminating education. However, the research discussed in this paper indicates that adult learners do not prefer mediated or televised instruction. In fact, taped or televised classes generally rank at the very bottom of all lists of preferred instruction techniques.

This may be because these instructional media are simply not desirable to learners, or because adult learners are simply unfamiliar with mediated instruction, but even if lack of familiarity is the

only problem, the development of telecommunications as an educational delivery system deserves reassessment. It is not appropriate to argue that such development is necessary solely because of the needs of nontraditional learners. Adults when surveyed say clearly they do not want and seldom use electronic media for engaging in education. Thus, if the State is to promote the development of telecommunications, it would seem that such a policy would have to be premised on the needs of the State and other considerations such as economics and not on the preferences of adult learners.

Does the State Need an Improved Data Collection System for Information on Adult Learners?

Cross (1981, p. 202) and other writers have suggested that better data collection systems are needed in the area of adult education. It is certainly true that many of the major national data in this area are now several years old and that longitudinal comparisons are not possible given the current data base. However, some findings are so clearly demonstrated by research that they would not need to be replicated again. For example, the relationship between previous educational attainment and further participation in education is well established. Therefore, if the State were to establish a permanent data collection system on adult learning, this would be one area that should not require extensive attention. In addition, the need for an ongoing data collection system is directly related to the degree to which the State will make specific efforts to improve participation of adults. If the State does not intend to make efforts in this area, little would be gained by extensive monitoring of participation. However, if the State does establish programs designed to improve participation, then a permanent data collection system could be a valuable tool for monitoring the effectiveness of such programs.

Should the State Promote Closer Ties Between Education and Business and Industry?

The research on adult learning seems to indicate that a substantial number of adult learners take classes for job-related reasons. This may indicate that further cooperation between educational institutions and business and industry is called for.

However, there are some contrary indications. First of all, potential learners are much more likely than actual learners to express an interest in on-the-job training as an instructional technique. This may mean that potential learners would not be attracted to traditional classes on employment-related subjects, even if more were offered. In addition, those who are employed already partic-

ipate far more frequently than those who are unemployed, which may imply that the State already devotes disproportionate efforts to serving this population and might well redirect some energies for serving the unemployed population.

How Can Commission Projects Related to Adult Learning be Coordinated?

In the introductory section of this paper, several other Commission projects related to adult learning were briefly described. Their objectives have by and large been fundamentally different than those of this paper. They have usually focused on what types of programs are available to serve adult students and how such programs should be operated or improved. By contrast, this paper has attempted to analyze the characteristics of learners without primary regard to the particular programs which serve them.

One of the most challenging problems facing the Commission in this area is to find a method of bringing together work done from these two different points of view. One difficulty in doing so is that studies done from a programmatic standpoint collect completely different kinds of data from that collected by surveys of adult learners. In addition, most of the information which has been collected about program offerings is very detailed and is used to analyze differences between various programs in California. Unfortunately, the information which is available about learner characteristics is not sufficiently detailed to permit use on anything less than a statewide basis. If the Commission is interested in further coordinating its efforts in the area of education for adults, it will have to consider how to obtain information that allows comparison of learner and program characteristics.

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